

KLEINZELLER, A; KNOTKOVA, A.

Electrolyte transport in rat diaphragm. *Physiol. Bohemoslov.* 13
no.4:317-326 '64.

1. Laboratory for Cell Metabolism, Institute of Microbiology,
Czechoslovak Academy of Sciences, Prague.

L 23997-66 BT(1)/BMA(h)

ACC NR: AP6009838

SOURCE CODE: UR/0413/66/000/004/0031/0031

AUTHOR: Borovkov, V. S.; Knots, L. L.; Lukovtsev, P. D.; Sokolov, L. A.

ORG: none

TITLE: An ELF pulse generator, Class 21, No. 178818 [announced by Institute of Electrochemistry, AN SSSR (Institut elektrokhimii AN SSSR)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 4, 1966, 31

TOPIC TAGS: ELF, pulse generator, positive feedback, current stabilization, semiconductor device

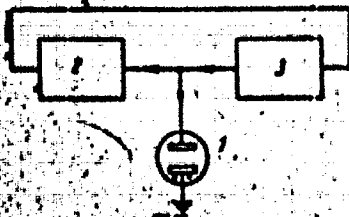
ABSTRACT: This Author's Certificate introduces: 1. An ELF pulse generator based on semiconductor devices. The unit contains a switching circuit, a reversible current stabilizer and a positive feedback circuit. In order to reduce the frequency and increase the stability of the generated pulses, an electrochemical time-delay element is connected in the positive feedback circuit at the output of the reversible current stabilizer. The voltage from this element is fed to the switching circuit. 2. A modification of this generator in which various periods of oscillations may be produced by connecting several electrochemical elements with various time delays in the feedback circuit.

UDC: 621.373.52

Card 1/2

L 23997-66

ACC NR: AP6009838



1--electrochemical time-delay element; 2--electronic switching circuit; 3--reversible current stabilizer

SUB CODE: 09/

SUBM DATE: 05Apr65/

ORIG REF: 000/

OTH REF: 000

Card 2/2 *pl*

ALEKSEYEV, V.N.; KNOTS, L.L.; TARASEVICH, M.R.; SHUMILOVA, M.A. (Moscow)

Apparatus for investigating electrochemical systems by the
triangular pulse method. Zhur. fis. khim. 38 no.4:1048-1051
Ap '64. (MIRA 17:6)

1. Akademiya nauk SSSR, Institut elektrokhimii.

ALEKSEYEV, V.N.; ZHUTAYEVA, G.V.; KNOTS, L.L.; LENTSNER, B.I.; TARASEVICH,
M.R.; SHUMILOVA, N.A.

Method of trapezoidal voltage pulses. Elektrokhimiya 1
no.3:373-376 Mr '65. (MIRA 18:12)

1. Institut elektrokhemii AN SSSR.

KNOTS, L.L.; DUBOVIK, G.G.

Technique of generating self-oscillations in a cell for
measuring the Volta potential difference by the condenser
method. Elektrokimiia 1 no.7:788-793 J1 '65.

(MIRA 18:10)

1. Institut elektrokimii AN SSSR.

LEYKIS, D.I.; SEVAST'YANOV, E.S.; KNOTS, L.L.

Change in the impedance components of an electrode with
change of alternating current frequency. Zhur. fiz. khim.
38 no.7:1833-1837 J1 '64. (MIRA 18:3)

1. Institut elektrokhemii AN SSSR.

L 7972-66 EWT(m)/EPT(c)/ETC/EO(m)/EWP(j)/T/EWP(t)/EWP(b) IJP(c) DS/JD/JM
ACC NR: AP5025083 SOURCE CODE: UR/0364/65/001/010/1268/1272

AUTHOR: Burshteyn, R. Kh.; Pshenichnikov, A. G.; Tyurin, V. S.; Knola, L. L.

ORG: Electrochemical Institute AN SSSR (Institut elektrokhimii AN SSSR)

TITLE: Chemisorption and oxidation of hydrocarbons on a platinum electrode I.

Ethane

SOURCE: Elektrokhiimiya, v. 1, no. 10, 1965, 1268-1272

TOPIC TAGS: hydrocarbon, chemisorption, oxidation, electrode, platinum, electrolytic cell

ABSTRACT: It has been demonstrated that the chemisorption of organic substances on platinized platinum is accompanied by processes of dehydrogenation, and hydrogenation and by breaking of the C-C and C=C bonds. It follows from galvanostatic charge curves that, in the chemisorption of ethylene and ethane on a platinum surface, the amount of chemisorbed hydrogen and organic groups depends on the experimental conditions. The present article examines the process of the chemisorption and oxidation of ethane on a platinum electrode, using the method of tri-

Card 1/2

UDC: 541.13

L 7972-66

ACC NR: AP5025083

angular pulse voltages with a scanning speed of 5 mv/sec. The $i-\varphi$ curves were recorded with a two-coordinate automatic recording instrument, Type PDS-021. The experiments were carried out in 1 N H_2SO_4 at 90 C. The electrode, at a given potential (φ), was brought into contact with a solution saturated with ethane. The residence time in the solution saturated with ethane, at a potential equal to 1.1 volts, was calculated from the moment when the electrode attained a potential of 0.6 volts. Then the hydrocarbon was eliminated from the solution by passing argon through it for a determined period of time. The $i-\varphi$ curves were constructed by taking different intervals of time for the residence of the ethane in the chemisorbed state. The experimental results are exhibited graphically and in tabular form. Orig. art. has: 7 formulas, 5 figures and 1 table

SUB CODE: GC/ SUBM DATE: 30 May65/ ORIG. REF: 003/ OTH REF: 003

6C
Card 2/2

L 8167-66 EEC(h)/EPF(h)-2/EWA(h)/EWT(1) AT/WW SOURCE CODE: UR/0286/65/000/018/0036/0037

ACC NR: AP5025686

AUTHORS: ^{44, 55} Knots, L. L.; ^{44, 55} Lentner, B. I.; ^{44, 55} Alekseyev, V. N.

ORG: none

TITLE: Single trapezoidal pulse generator, Class 21, No. 174664 [announced by Institute of Electrochemistry, AN SSSR (Institut elektrokhimii AN SSSR)]

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 18, 1965, 36-37

TOPIC TAGS: ^{21, 44, 55} pulse generator, pulse shaper

ABSTRACT: This Author Certificate presents a single trapezoidal pulse generator containing a device with two stable states with independent regulation of the positive and negative levels of the output voltage, a nonlinear integrator with independent regulation of the integration limits, a differentiating amplifier, a passive RC circuit, and a time delay unit (see Fig. 1). To insure the mutually independent regulation of the trapezoidal pulse parameters, the integrator is connected in series with the device with two stable states. The differentiating amplifier, the passive RC circuit, a trigger, and the regulated time delay unit, which are all connected in series, are connected between the integrator output and

Card 1/2

UDC: 621.373.43

L 8167-66

ACC NR: AP5025686

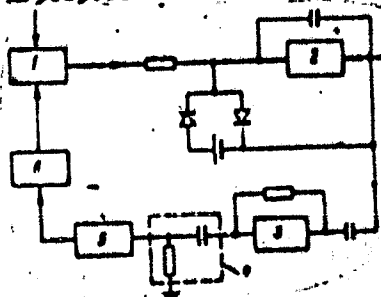


Fig. 1. 1- device with two stable states; 2- nonlinear integrator; 3- differentiating amplifier; 4- passive RC circuit; 5- trigger; 6- regulated time delay unit

the bistable device input. Orig. art. has: 1 diagram.

SUB CODE: EC/

SUBM DATE: 07Mar63

jw
Card 2/2

KNOTS, L.I., DUBOVIK, G.G.

Measurement of the contact difference of potentials by the
condenser-type method. Elektrokhimiia 1 no.5:507-511 My '65.
(MIRA 18:6)

1. Institut, elektrokhimii AN SSSR.

S/076/60/034/008/035/039/XX
B015/B063

AUTHORS: Leykis, D. I., Knots, L. L.

TITLE: Detection of Concentration Polarization by Measuring the Electrode Impedance

PERIODICAL: Zhurnal fizicheskoy khimii, 1960, Vol. 34, No. 8, pp. 1872-1874

TEXT: For kinetic studies of electrodic processes it is important to know whether a concentration polarization takes place at the electrode. This problem is usually solved by measuring the component of the electrode impedance in alternating current at different frequencies, since the concentration polarization at the electrode is equivalent to the corresponding values of capacitance and resistance which are connected in parallel or series. The phase shift is 45° , and the impedance component is a linear function of $1/\omega$ (ω - angular frequency of alternating current). If the capacitance of the double layer (electrode - electrolyte) or the concentration polarization is high, this function becomes more complicated. The authors have detected a property of the active component of impedance as

Card 1/4

Detection of Concentration Polarization by
Measuring the Electrode Impedance

S/076/60/034/008/035/039/XX
B015/B063

a function of $1/\sqrt{\omega}$, which may be used to indicate the presence of concentration polarization. It is assumed that if there is no concentration polarization, any electrode can be simulated in first approximation by one of the circuit diagrams shown in Fig. 1. The impedance of the electrode is given as $Z_0 = R_0 - jX_0$ (R_0 and X_0 = active and reactive component, respectively), and the impedance for each diagram of Fig. 1 and the value for $\lim_{\omega \rightarrow 0} R$ are obtained as follows: ✓

$$Z_{e(1)} = \frac{R}{1 + (\omega RC)^2} - j \frac{\omega RC}{1 + (\omega RC)^2} = R_{e(1)} - jX_{e(1)} \quad (1)$$

$$Z_{e(2)} = R - j \frac{1}{\omega C} = R_{e(2)} - jX_{e(2)} \quad (2)$$

Card 2/4

Detection of Concentration Polarization by
Measuring the Electrode Impedance

S/076/60/034/008/035/039/XX
B015/B063

$$Z_o(\omega) = \frac{RC_1^2}{\omega^2 R^2 C_1^2 + (C_1 + C_2)^2} + \frac{\omega^2 R^2 C_1^2 + \omega^{-1}(C_1 + C_2)}{\omega^2 R^2 C_1^2 + (C_1 + C_2)^2} = R_o(\omega) - iX_o(\omega)$$

$$(3)$$

$$Z_o(\omega) = \frac{\omega^2 C_1^2 R_1 R_2 (R_1 + R_2) + R_1 C_1^2 + R_2 C_1^2}{\omega^2 (R_1 + R_2)^2 C_1^2 + (C_1 + C_2)^2} -$$

$$- \frac{\omega C_1 C_2 (R_1^2 C_1 + R_2^2 C_2) + \omega^{-1}(C_1 + C_2)}{\omega^2 (R_1 + R_2)^2 C_1^2 + (C_1 + C_2)^2} = R_o(\omega) - iX_o(\omega)$$

$$(4)$$

When an element equivalent to the concentration polarization is introduced into the circuit, the function R_o becomes infinite. Thus, an unlimited increase of R for $\omega \rightarrow 0$ indicates the presence of concentration polarization, whereas the tendency of R to a limit shows that it is absent. Hence, the dependence of the active component of the electrode impedance R on $1/\omega$ may serve as a criterion for the presence of concentration polarization at the electrode. Professor B. N. Kabanov is thanked for advice. There are 2 figures and 3 references: 2 Soviet and 1 German.

Card 3/4

Detection of Concentration Polarization by
Measuring the Electrode Impedance

S/076/60/034/008/035/039/XX
B015/B063

ASSOCIATION: Akademiya nauk SSSR Institut elektrokhimii
(Academy of Sciences USSR, Institute of Electrochemistry)

SUBMITTED: February 6, 1960

$$\lim_{\omega \rightarrow 0} R_{e(1)} = R_1 \quad (5)$$

$$\lim_{\omega \rightarrow 0} R_{e(2)} = R_1 \quad (6)$$

$$\lim_{\omega \rightarrow 0} R_{e(3)} = \frac{R_1 C_1^2}{(C_1 + C_2)^2} < R_1 \quad (7)$$

$$\lim_{\omega \rightarrow 0} R_{e(4)} = \frac{R_1 C_1^2}{(C_1 + C_2)^2} + \frac{R_2 C_2^2}{(C_1 + C_2)^2} < R_1 + R_2 \quad (8)$$

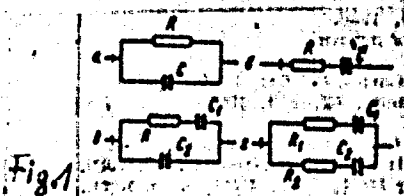


Fig. 1

Card 4/4

KNOTZ, F.

TESAREK, T.

CZECHOSLOVAKIA

no academic degree indicated

Oncological Research Institute (Vyskumny ustav onkologicky), Bratislava;
Director: corresp. member SAV, docent V. THURZO, MD.

Bratislava, Bratislavské Lekárske Listy, No 8, Oct 62, pp 485-489.

"Replacement of the Oesophagus by a Colon as Palliative Surgery for Carcinoma of
the Oesophagus"

Co-authors: /

CODAL, A. same as above

JUDIN, J. " " "

KNOTZ, F. " " "

KROZE, F., DVORAK, F.

Problem of prevention of atelectasis. Bratisl. lek. listy 34 no.2:
186-189 F '54.

1. 2 Chirurgické kliniky LFŠU v Košiciach, prednosta prof. dr.
J. Knasovický.

(ATELECTASIS,

*postop., prev.)

(LUNGS, surgery,

*postop. atelectasis, prev.)

KNOTZ, J.

Carbon dioxide in anesthesia for children. Roshl.chir. 34 no.3:
195-197 Mar 55.

1. Z Chirurgickej kliniky v Kosiach, prednosta prof. Dr J. Knasevický

(CARBON DIOXIDE, anesthesia and analgesia
absorber with readjustment in child.)

(ANESTHESIA, INHALATION)

carbon dioxide, absorber with readjustment in child.)

KRATOCHVIL, M.; KNOTZ, F.; JUDIN, J.; GODAL, A.; WINKLER, A.

An experimental study in local (regional) chemotherapy of the
intrahepatically implanted Brown - Pearce tumour in the rabbit.
Neoplasma, Bratisl. 6 no.3:275-279 1959

1. Oncological Research Institute, Bratislava
(NEOPLASMA exper.)
(NITROGEN MUSTARDS pharmacol.)
(LIVER neopl.)

UJHAZY,V.; KNOTZ,F.; GODAL,A.; WINKLER,A.

Experimental study of the relationship between the level of serum glutamic oxalacetic transaminase (SGOT) and carcinomatous injury of the liver parenchyma. Neoplasma, Bratisl. 7 no.1: 42-47 '60.

1. Oncological Research Institute, Bratislava, CSR.
(LIVER NEOPLASMS exper.)
(TRANSAMINASES blood)

KNOTZ, F.; HANIKOVA, D.; KLIMA, R.

Clinical experiences with fluothane. Preliminary report. Rozhl.
chir. 39 no.10:683-687 0'60.

1. Vyskumny ustav onkologicky v Bratislave, Krajsky ustav
narodneho zdravia v Trnave, Chirurgicka klinika v Kosiciach.
(ANESTHETICS)

GODAL, A.; JUDIN, J.; KNOTZ, F.; KRATOCHVIL, M.

A comparative study of the effect of intraperitoneal and intraportal administrations of TS 160 on the regenerative activity of the rat liver. Neoplasma 8 no.5:537-54? '61.

1. Oncological Research Institute, Bratislava, Czechoslovakia.
(NITROGEN MUSTARDS pharmacol) (LIVER pharmacol)
(REGENERATION pharmacol)

KNOTZ, F.; BELOHORSKY, B.; RIEDEL, J.

Recent trends in clinical anesthesiology with special regard to the needs in oncological gynecology. Bratisl. lek. listy 41 no.7:424-429 '61.

1. Z Vyskumneho ustavu onkologickeho v Bratislave, riaditel doc. MUDr. V. Thurao.

(GENITALIA FEMALE neopl) (ANESTHESIA)

KNOTZ, F.

CZECHOSLOVAKIA

no academic degree indicated

Oncological Research Institute (Vyskumny ustav onkologicky), Bratislava;
Director: corresp. member SAV, docent V. THURZO, MD.

Bratislava, Bratislavské Lekárske Listy, No 8, Oct 62, pp 481-485.

"The Tasks and Problems of Anesthesiology in Clinical Oncology"

GODAL, A.; JUDIN, J.; KNOTZ, F.; TESAREK, T.

Application of endoxan in combination with surgical treatment in cancer of the gastrointestinal tract. Neoplasma 9 no.5:537-541 '62.

1. Oncological Research Institute, Bratislava, CSSR.
(GASTROINTESTINAL NEOPLASMS) (CYCLOPHOSPHAMIDE)

KNOTZ, F.

Tasks and problems of anesthesiology in clinical oncology. Bratisl.
Lek. Listy 42 no. 8:481-485 '62.

1. Z Vyskumneho ustavu onkologickeho v Bratislave, riaditel clan
koresp. SAV doc. MUDr. V. Thurso.

(NEOPLASMS) (ANESTHESIA)

SIRACKA, E.; KNOTZ, F.; SANDOR, L.

An attempt to increase the radiosensitivity of experimental tumours by inducing a state of hypermetabolism. Neoplasma 10 no.3:231-235 '63.

1. Institute of Cancer Research, Bratislava, CSSR.

(SARCOMA, HOSHIDA)	(SARCOMA, JENSEN)
(TRIIODOTHYRONINE)	(METABOLISM)
(RADIATION EFFECTS)	

GODAL,A.; TESAREK,T.; JUDIN,J.; KNOTZ,F.

The use of Degranol in combination with surgical treatment in
cancer of gastrointestinal tract. Neoplasma 11 no.1:89-93 '64.

1. Oncological Research Institute, Bratislava, Czechoslovakia.

*

BUROS, M.; MOLNAROVA, K.; KADLIC, T.; KNOTZ, F.; ONDROUCHOVA, D.

Terminology of acid-base equilibrium. Rozhl. chir. 43 no.6:
353-358 Je'64

1. Statne sanatorium v Bratislave (riaditel: MUDr. J. Rumanak, CSc.); I. chirurgicka klinika Lekarskej fakulty UK [University Komenskeho] v Bratislave (prednosta: prof. dr. K. Caraky); Onkologicky vyukumny ustav v Bratislave (riaditel: akademik V. Thurso); Klinika chirurgie detskeho veku Lekarskej fakulty UK [University Komenskeho] v Bratislave (prednosta: prof. dr. M. Kratochvil, CSc.).

KNOTZOVA, K.

WINKLER, Alojs; UJHANY, Viliam; KNOTZOVA, Kornelia; SOHM, Frantisek

The level of 6-ascoracil in the serum of rats. Neoplasms, Bratisl.
5 no.2:97-100 1958.

1. Oncological Research Institute, Bratislava. Chemical Institute of
the Czechoslovak Academy of Sciences, Praha. Authors' address: Dr. A.
Winkler and co-workers, Bratislava, ul. Cs. armady 17; akademik F. Sohm,
Praha, Chemicky ustav OKAV.

(URACIL, antag.

6-ascoracil, retention in blood in rabbits)

(CYTOTOXIC DRUGS, in blood,

6-ascoracil, retention in rabbits)

KNOURKOV, Jva; MACK, Zdenek, ins.

Laboratory sectional assembly jig. Sdel tech 11 no.7:265-266
Jl '63.

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Ornithosis neuroinfection. Cas.lek.cesk.99 no.39:1238-1242 23 8 '60.

1. Neurologické oddělení ONZ Uh. Hradiste, prednosta prim.dr.
A. Strnad. KHS v Gottwaldove, oddeleni v Uh. Hradisti, virologické
laborator, prednosta prim.dr. J.Valihrach.
(NEUROLOGY)
(ORNITHOSIS compl)

KNUBOVETS, R.O.; MASLENNIKOV, B.M.

Adsorption of flotation reagents by minerals studied by infrared spectroscopy. Dokl. AN SSSR 164 no.2:387-389 S '65.
(MIRA 18:9)

1. Submitted March 9, 1965.

KNUBOVETS, S.Ya.

X-ray manometry in the evaluation of indications for choledochotomy.
Choledochoscopy. Nauch. trudy Kaz. gos. med. inst. 14:453-454 '64.
(MIRA 18:9)

1. Kafedra fakul'tetskoy khirurgii (sav. - prof. I.F.Kharitonov)
Kazanskogo meditsinskogo instituta.

KNUBOVETS, S. Ya.

Röntgenomanometric studies in biliary tract surgery. Kaz. med.
zhur. no. 5:22-26 8-0'63 (MIRA 16:12)

1. Kafedra fakul'tetskoy khirurgii (nav. - prof. I.F.Kharitonov)
Kazanskogo meditsinskogo instituta.

KNUBOVETS, Ya. S.

"A Hinged Instrument for Immobilizing Occlusion Molds during an
Oral Determination of the Occlusion Curve," Stomatologiya, No. 1, 1948.

Kazan' Stomatol. Inst.

KNUBOVTS, Ya.S., kandidat meditsinskikh nauk.

~~XXXXXXXXXXXXXXXXXXXX~~

**Immobilising loose teeth in anophodontosis. Stomatologiya no.1:
54-55 Ja-F '54. (MLRA 7:1)**

**1. Is kafedry stomatologii (zaveduyushchiy - professor P.N.
Kartashov) Kazanskogo Gosudarstvennogo instituta dlya usover-
shenstvovaniya vrachey (direktor - doktor meditsinskikh nauk
I.V.Danilov). (Teeth-diseases)**

KNUBOVETS, Ya.S.

Some structural changes in the alveolar process and the teeth of the lower jaw due to the compression of the inferior alveolar nerve in dogs. Nauch. trudy Kaz. gos. med. inst. 14:215-216 '64.
(MIRA 18:9)

1. Kafedra ortopedicheskoy stomatologii (zav. - prof. I.M. Okman) Kazanskogo meditsinskogo instituta.

KNUBOVETS, Ya.S., dotsent

Changes in the mineral metabolism in the teeth and in the alveolar process of the mandible following stimulation of the nerves of the masticatory muscles. Vop. obshchei stom. 17:86-89 '64.

Method of the fixation of prosthesis in total absence of teeth. Ibid.:104-106 (MIRA 18:11)

OKEMAN, I.M., prof.; KNUBOVITS, Yasha, detainee

Manuals and textbooks on orthopedic stomatology. Top.
obshchaya stom. 17:113-116 '64.

(MIRA 18:11)

KNUBOVETS, Ya.S., kandidat meditsinskikh nauk

**Method of determining central occlusion of the teeth. Stomatologiya
no.2:51-51 Mr-Apr '55. (MIRA 8:5)**

**1. Iz kafedry stomatologii (sav. prof. P.N.Kartashov) Kazanskogo
gosudarstvennogo instituta usovershenstvovaniya vrachey imeni V.I.
Lenina (dir. prof. I.V.Danilov).
(TEETH,
determ. of central occlusion)**

KOPEYKIN, Vadim Nikolayevich; KNEBOVETS, Yakov Samuilovich;
KURLYANDSKIY Veniamin Yur'yevich; OKSMAN, Isaak
Mikhaylovich; KALONTAROV, D.Ye., kand. med. nauk, red.;
KOROLEV, A.V., tekhn. red.

[Technique of prosthodontics] Zuboprotezraia tekhnika. [By]
V.N.Kopeikin i dr. Moskva, Izd-vo "Meditsina," 1964. 343 p.
(MIRA 17:4)

KNUFFY, Z.

"Directives for Planning Needs in Fodder and Feeding. II.", P. 179,
(AGRARTUDOMANY, Vol. 6, No. 6, June 1954, Budapest, Hungary)

SO: Monthly List of East European Accessions, (REAL), LC, Vol. 3, No. 12,
Dec. 1954, Uncl.

KNONYANTS, I. A. AND YEVGRAPOV, Yu. P.

"2-Methyl-~~4~~-Naphthindol and Certain of its Transformations," Zhur Obsch. Khim., 10,
No. 19-20, 1940, Laboratory of Organic Chemistry, Military Academy of Chemical Defense
of the Red Army imeni K. Ye. Voroshilov, Moscow Received 8 May 1940

Report U-1612, 3 Jan. 1952

KNUNYANTS, I., akademik; FEDOROVICH, M.

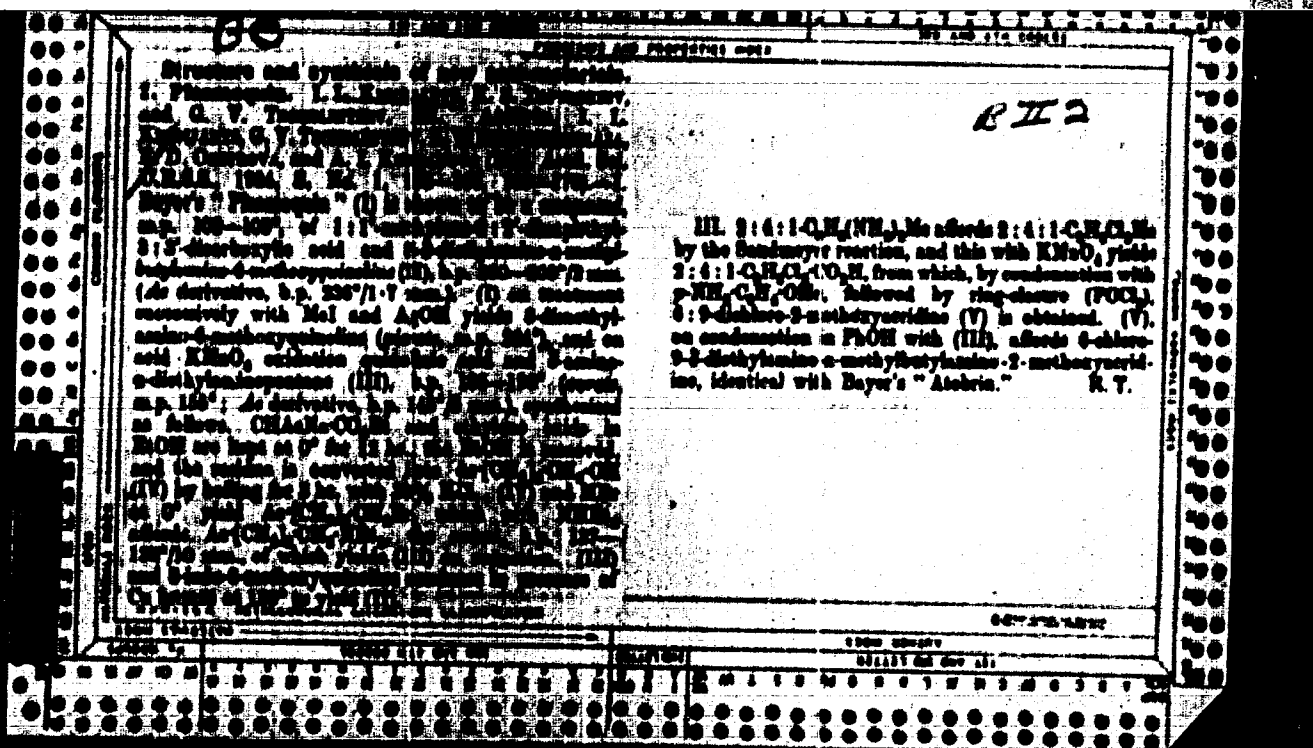
"Economics of the synthetic materials industry" by N.P.Fedorenko.
Reviewed by I.Knuniants, M.Fedorovich. Vop. ekon. no.8:120-122
Ag '62. (MIRA 15:8)
(Synthetic products) (Fedorenko, N.P.)

KNUNYANTS, I.D.; DYATKIN, B.L.; GERMAN, L.S.

**Reactions of perfluoroacrylonitrile. Khim.nauka i prom. 3 no.6:
828-829 '58. (MIRA 12:2)**

- 1. Institut elementreorganicheskikh soedineniy AN SSSR.
(Acrylonitrile)**

IN AND JIN SECTORS		NO. 240 JIN SECTOR	
<p>KHUNYANTS, I. L.</p> <p>CA</p>		<p>SECTION 17</p>	
<p>The structure and synthesis of new anti-malarial substances. The structure of "Asterin," G. V. Chalkovskiy, I. L. Khunyanets and E. V. Buzdakovskaya. <i>Grafiya i Khim. Ak. U. S. S. R.</i>, (N. S.), 1, 48-51 (in English 55-57) (1954). - Com. "Asterin" was recovered from hot water, m. 240-25°. From this dihydrochloride the free base was isolated, dissolved in 120 cc. of 50% NaOH, and 5 g. of K₂CO₃ in conc. soln. added. Alkali was added, and then steam distn. gave the base, 3-diethylamino-5-aminoquinoline. "Asterin" was shown by synthesis to be 7-methoxy-4-chloro-5-(3-diethylamino-o-methylbenzyl)-aminosquaridine-HCl. F. H. Rathmann</p>			
<p>110-116 METALLURGICAL LITERATURE CLASSIFICATION</p>			
<p>11000 CHEMISTRY</p>		<p>11000 PHYSICS</p>	
<p>SECTION 110 DIV 100</p>		<p>RELATIONS</p>	
<p>110000 11</p>		<p>11000000 11000000</p>	



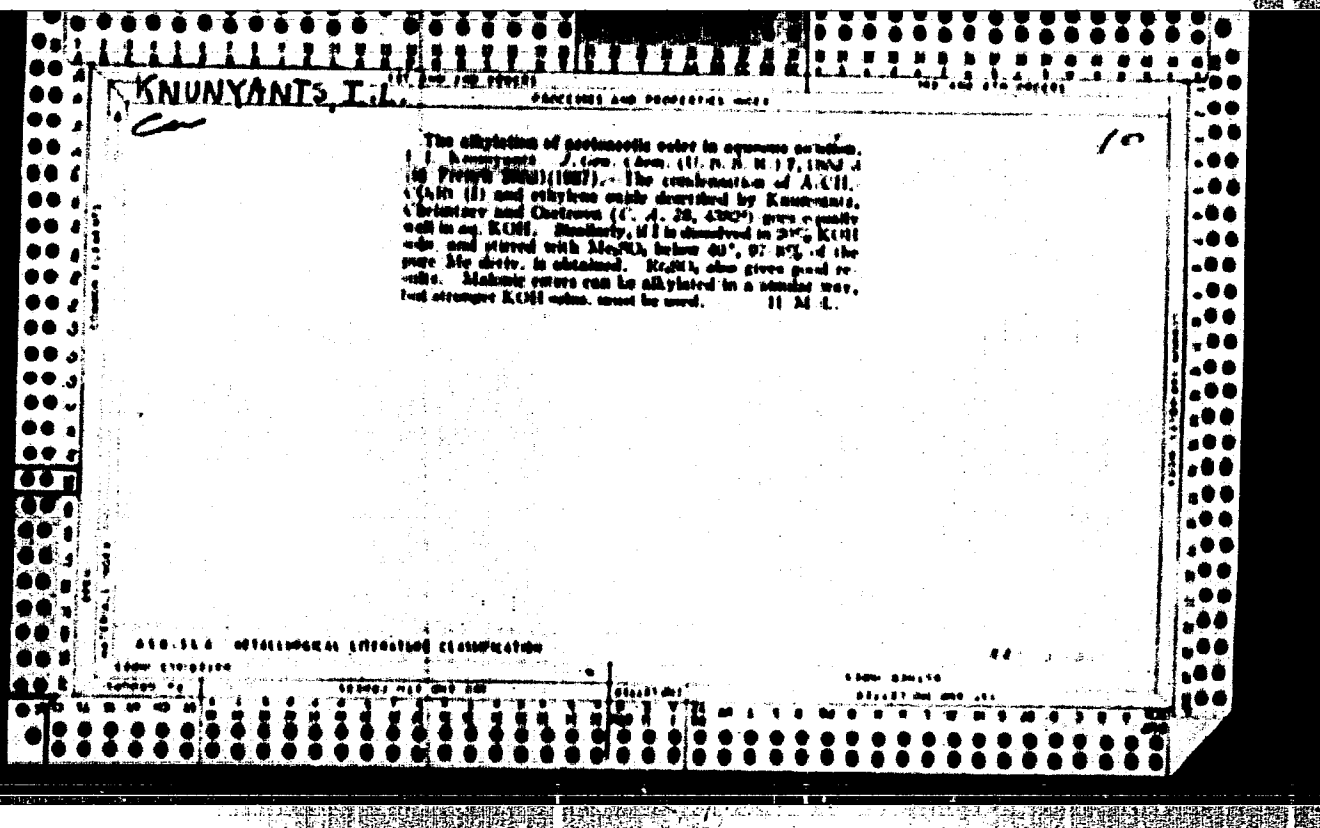
F-3	
PERCENTAGE AND PROPORTIONS INDEX	
<p>[REDACTED]</p>	
J.T.D.	
STATISTICAL LITERATURE CLASSIFICATION	
OCT 19 1968	
CLASSIFIED BY [REDACTED] DATE [REDACTED]	
DECLASSIFY ON [REDACTED]	

[illegible]

KNUNYANTS, L.L.		10	
<p>The condensation of a-hydroxybutyric anhydride with anhydride of a-hydroxybutyric acid. L. L. Knunyants and M. N. Orlovskiy. Zhurnal Khim. Fiz. 37: 10, 1967, p. 1000-1001 (in Russian, 1967, 10, 1967). An attempt to prove the nature of the condensation product by absorption of infrared spectra and with IR spectra results in the formation of a-hydroxybutyric anhydride, by 100%, of the compound (C₄H₇O₅). This substance lost CO₂ on exposure to give a substance, by 100%, of the compound of a-hydroxybutyric acid (C₄H₇O₅), which was oxidized with concentrated HNO₃ to oxalic acid. It contained 1 equiv. of NaOH readily in the cold and another when heated. The authors suggest it to be a glycolic ester: HO-CH₂-CH₂-(COOCH₂-CH₂-CH₂-COOCH₂)₂ and M to be H₂C(OH)-CH₂-CH₂-CH₂-COOCH₂COO, the hydroxybutyrolactone derivative of 4-hydroxybutano-1,3-dicarboxylic acid.</p> <p>R. Sakaly</p>			
<p>ADD-114 METALLURGICAL INFORMATION CLASSIFICATION</p>			

[illegible]

<p>11. 10. 1961</p> <p>KNUNYANTS, I. I.</p>		<p>abstract and generalization</p> <p>synthesis in the field of antimalarial substances. (p-alkylaminoalkyl)amine derivatives of the benzothiazine series. I. I. Knunyants and Z. V. Novikova. J. Gen. Chem. (U.S.S.R.), 31:71-72 (1957); cf. Berthel, C. A. 31, 1779. 3-Nitro-4-aminobenzothiazine and PAA give 3-nitro-4-aminobenzothiazine (I) m. 101-2°. When I is heated with acid or alkali, it is split off hydrolytically. When I is oxidized with K₂Cr₂O₇, it forms 3-methoxy-7-nitro-2-methylbenzothiazine m. 100-101°. With SnCl₄ and HCl, this is reduced to the corresponding amine m. 98-9° (II) (Cl salt m. 214-16°), which reacts with H₂N(C₂H₄)₂ HCl (III) to give 3-methoxy-7-(1-dimethylamino)propylamino-2-methylbenzothiazine (III), b. 210-10° (HCl salt m. 180-7°). Methoxy-4-nitroaniline and HCl(III) give 3-nitro-4-aminobenzothiazine, m. 100-1°, which with PAA gives 3-nitro-4-aminobenzothiazine, m. 100-1°. This is hydrolyzed by HCl but not by alkali. It is not oxidized by K₂Cr₂O₇, and so cannot be used to obtain a benzothiazine deriv. 3-Nitro-4-aminobenzothiazine and (CO₂H)₂ give p-methoxy-4-aminobenzothiazine, m. 107°, which with PAA gives p-methoxy-4-aminobenzothiazine, m. 107°. Upon heating the acid, m. 122°, which is oxidized by K₂Cr₂O₇ to 3-methoxy-7-nitrobenzothiazine-2-carboxylic acid. When this is heated with HCl it gives 3-methoxy-7-nitrobenzothiazine, m. 101°. The corresponding amine, m. 103° (HCl salt, m. 204-11°), is obtained by reduction and in turn reacts with I to form 3-methoxy-7-(1-dimethylamino)propylamino-2-methylbenzothiazine, b. 210-15° (IV). Although III and IV clearly resemble their quinoline analogs in chem. and phys. properties, they have no antimalarial action. I. M. I.</p>	
<p>11. 10. 1961</p> <p>KNUNYANTS, I. I.</p>		<p>abstract and generalization</p> <p>synthesis in the field of antimalarial substances. (p-alkylaminoalkyl)amine derivatives of the benzothiazine series. I. I. Knunyants and Z. V. Novikova. J. Gen. Chem. (U.S.S.R.), 31:71-72 (1957); cf. Berthel, C. A. 31, 1779. 3-Nitro-4-aminobenzothiazine and PAA give 3-nitro-4-aminobenzothiazine (I) m. 101-2°. When I is heated with acid or alkali, it is split off hydrolytically. When I is oxidized with K₂Cr₂O₇, it forms 3-methoxy-7-nitro-2-methylbenzothiazine m. 100-101°. With SnCl₄ and HCl, this is reduced to the corresponding amine m. 98-9° (II) (Cl salt m. 214-16°), which reacts with H₂N(C₂H₄)₂ HCl (III) to give 3-methoxy-7-(1-dimethylamino)propylamino-2-methylbenzothiazine (III), b. 210-10° (HCl salt m. 180-7°). Methoxy-4-nitroaniline and HCl(III) give 3-nitro-4-aminobenzothiazine, m. 100-1°, which with PAA gives 3-nitro-4-aminobenzothiazine, m. 100-1°. This is hydrolyzed by HCl but not by alkali. It is not oxidized by K₂Cr₂O₇, and so cannot be used to obtain a benzothiazine deriv. 3-Nitro-4-aminobenzothiazine and (CO₂H)₂ give p-methoxy-4-aminobenzothiazine, m. 107°, which with PAA gives p-methoxy-4-aminobenzothiazine, m. 107°. Upon heating the acid, m. 122°, which is oxidized by K₂Cr₂O₇ to 3-methoxy-7-nitrobenzothiazine-2-carboxylic acid. When this is heated with HCl it gives 3-methoxy-7-nitrobenzothiazine, m. 101°. The corresponding amine, m. 103° (HCl salt, m. 204-11°), is obtained by reduction and in turn reacts with I to form 3-methoxy-7-(1-dimethylamino)propylamino-2-methylbenzothiazine, b. 210-15° (IV). Although III and IV clearly resemble their quinoline analogs in chem. and phys. properties, they have no antimalarial action. I. M. I.</p>	



KNUNYANTS, I.I.

soluble in the cold of immiscible substances - H. Dissolved in acetone. 1-*o*-Menthyl and 2. V. *Neurotoxicity*. J. Gen. Chem. (U. S. S. R.), 7, 2020-3 (in French 1953) (1957); C. C. A. 32, 3110¹.—A mixt. of 11 g. chloroform and 6-ethoxy-*o*-methoxyphenol was stirred at 150-20° for 8 hrs. The mixt. was dissolved in Et₂O, made alk. with NaOH and retd. with Na₂S. The residue from the Et₂O was dried at 2 mm., giving 2.0 g. of an oil. This dissolved in di. alk. with the addn. of alk. HCl gave the HCl salt of 6-ethoxy-*o*-methylphenolamine, m. 140-5°. Acetylphenol (10 g.) was added, with stirring, to 20 g. 2-methoxy-4,6-dichloroaniline in 100 g. of retd. Et₂O on a water bath. After heating for an added 2 hrs. the reaction mass was poured into Et₂O and acid. with HCl. The Et₂O soln. was extd. with 5% aq. NaOH, the ext. was dropped with H₂SO₄ and acid. with H₂O, and the Et₂O expelled, giving 2-methoxy-4,6-dichloro-*o*-methylphenolamine, m. 140° (HCl salt, m. 220° (decolor.)). A mixt. of 4.5 g. 7-methoxy-5-methoxy-2-methylphenolamine and 0.5 g. chloroform was heated at 150-60° for 10 hrs. and purified as under the last compd. gave about 3 g. 5-methoxy-7-methylphenolamine, m. 110-15°. The HCl salt m. 210-15°. While the first 2 compds. have a strong anticholinergic action, the latter haspaine deriv. has none. This shows again that the benzothiazide nucleus does not impart anticholinergic action to a mol. even in the presence of elective substituents. The prepn. of combinations from chloroform and alk. NH₄OH (Ger. pat. 601,167) gives many yields. Acetylphenol, m. 140-1°, can be obtained in 100% yield by heating an equimol. amt. of chloroform and K phenylamide at 170-180° for 4 hrs. and decanting the supernatant with 6 vols. of Et₂O. HCl salt melting for 15 hrs. Class. New

KNUNYANTS, I. L.

ea

1. Synthesis of methyl ketone. I. L. Kunyants.
 Russ. 66,572, Dec. 31, 1969. 2-Hydroxyethylacetate
 acid is heated with H₂O.

4

410-56.6 METALLURGICAL LITERATURE CLASSIFICATION

FROM SOURCE

CLASS

DATE

REMARKS

DATE

REMARKS

KNUNYANTS, 1.1

ca

[illegible]

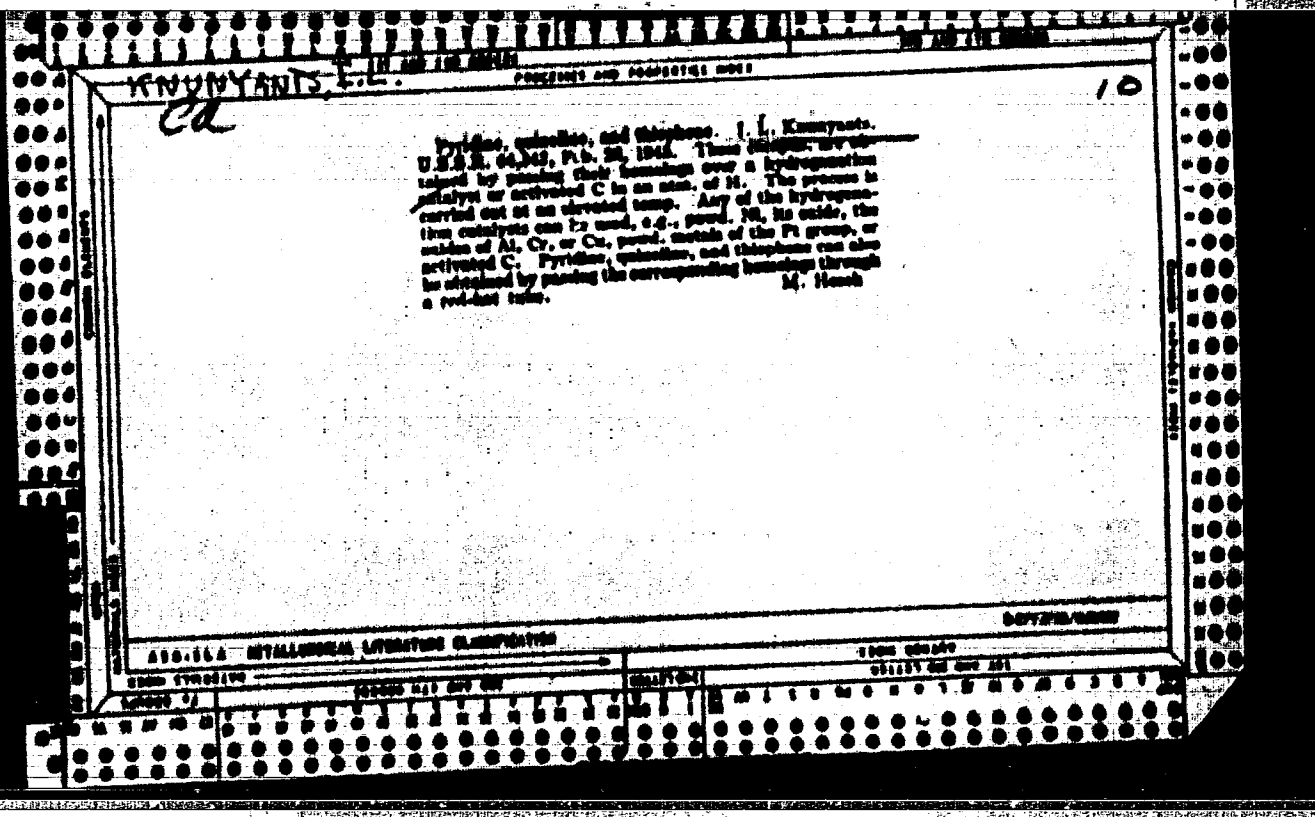
Lab. of Organic
Chem., Military
Acad. of Chemical
Defence of the
Red Army in
Voroshilov,
Moscow.

KNUNYANTS, I. L.

"1-Phenyl-3-Methylpyrazolone," T. G. Aleksandrov, B. M. Dubinin, I. L. Knunyants, and G. V. Chelintsev. Russ. 57,506, July 31, 1940. $\text{PhNHNH}_2 \cdot \text{HCl}$ is treated with the reaction product of AcOEt and Na .

The synthesis of new antimalarial substances - derivatives. 1. L. Kanyavants and Z. V. Kanyavants. J. Gen. Chem. (U.S.S.R.) 10, 1014-17 (1960). CH_3COCl , 40 g. (0.3 mole), 25 g. 2,4-DNPH (0.15 mole), 50 g. K_2CO_3 , 5 g. Cu brown and 5 g. K₂ were refluxed in an oil bath at 120-130° for 2 hrs. The resulting red mass was twice extd. with 200 cc. boiling Me_2CO . The insol. residue was boiled with water and filtered while hot. The residue on a filter paper (K₂ salt of the acid formed) was suspended in water and treated with dil. HCl. The total yield of 3'-methoxy-5'-nitro-4'-chloro-2'-diethylamino-phenylacetic acid (II), m. 280-2° was 60%. A mixt. of 30 g. I and 140 cc. $POCl_3$ was heated in an oil bath at 120-130° for 4-5 hrs. The excess of $POCl_3$ was dried, and the residue was poured into 15% NH_4OH . The ppt. was filtered, washed with water, dried and recrystd. from alc. C_6H_6 . The yield of 3'-methoxy-4'-chloro-2'-diethylamino-phenylacetic acid (III), m. 272-3°, was 80-85%. Heating II with a large excess of $PhOH$ at 80° for 48 min., followed by the removal of $PhOH$ and treatment of the reaction mixt. with a large amt. of ether and then with dil. $NaOH$, yielded 80-90% 3'-methoxy-4'-chloro-2'-diethylamino-phenylacetic acid (III), m. 280-2°. A mixt. of 3 g. III and 4.5 g. $MeCH(NH_2)(CH_3)_2$ was heated at 120-130° for 1 hr. The reaction mixt. was treated with dil. $AcOH$, filtered out and the filtrate was neutralized with NH_4OH . The yield of 3'-methoxy-4'-chloro-2'-diethylamino-phenylacetic acid (IV), "nitro-derivatives" was 70%. A mixt. of 10 g. IV in 70 cc. HCl (d. 1.16) was slowly treated with 20 cc. $NaCl$ in 50 cc. HCl . The mixt. was set aside for 1 hr., cooled and the ppt. was filtered out, dissolved in water and treated with a

large excess of $NaOH$ soln. The prod. base was extd. with ether and the ext. was dried with K_2CO_3 . The ext. was neutralized with HCl in ether while cooling and the ppt. formed was filtered out and washed with dry ether and recrystd. from alc., yielding 3'-methoxy-4'-chloro-2'-diethylamino-phenylacetic acid (V), m. 242-3°. The ether soln. of the base prod. from V (5 g.) was dried with anhyd. K_2CO_3 , filtered and the ether was dried (finally in $vacuo$). The residue was mixed with 5 g. $CH_3Cl(CH_2)_3NH_2$, HCl and heated in an oil bath at 120-130° for 2 hrs. and at 120-130° for 2 hrs. The reaction mixt. was dissolved in hot water, decanted with alkali and extd. with ether. The ext. was treated with HCl in ether. The resulting 3'-methoxy-4'-chloro-2'-diethylamino-phenylacetic acid (VI), m. 181-4°, sol. in water and alc. and not very sol. in Me_2CO , C_6H_6 , and petr. ether, is hygroscopic. The antimalarial effect of IV was very weak, whereas V and VI were not active at all. Conclusion. Introduction of a NO_2 group into the 4-position of the above anal. decreased the antimalarial effect and NH_2 and diethylaminoalkylamino groups (in the same position) destroyed this effect entirely. A. A. P.



Syntheses in the field of new antimicrobial substances.
Derivatives of glutamamide hydrolysis. I. L. Kaganovskii
D. Ya. Kaf-6. J. Gen. Chem. (U.S.S.R.) 18, 629-31
(1944) (English summary).—The reaction of aminopropion-
amide with diethoxyphosphorylchloride leads to an-
oxym. amine deriva. of glutamamide hydrolysis, while the reac-
tion with the pyridine bromopyrimidine gives the symmetri-
cally constituted deriva. The reaction products obtained
from 6-methyl-2-aminoquinoline with pyridine bromo-
cyanide, analogous to certain antimicrobials and differing
from them in constitution along the C chain between the
amine groups, were not active antimicrobials. 1-(2,4-
diethoxyphosphoryl)pyridinium chlor. salt (3 g.) and 2.6 g.
of 6-methyl-2-aminoquinoline were heated with 10 cc. abs.
EtOH and reduced for 24 hr., after standing 1 hr.
there formed a dark-red cryst. mass which was filtered off
and washed with EtOAc to give pure N-[2-(4-diethoxyphos-
phoryl)-2-pyridyl]-N'-methyl-2-aminoquinoline-HCl,
m. 129-4° (from MeOH); a similar reaction, using
6-aminoquinoline gave N-[2-(4-diethoxyphosphoryl)-2-pyridyl]-
N'-methyl-2-aminoquinoline-HCl, violet-red, m. 129-
5° (from MeOH); repetition of the latter reaction with
boiling for 2.5 hrs. resulted in residue of the liquid part
with formation of a green min.; evapn. of this, extrn.
of the residue with MeCO₂, and crystal. of the residue from
CHCl₃ gave pyridine chloropyrimidine (1-(6-amino-2-pyridyl)-
pyrimidine chloride), m. 107-108°. 1-(Phenylthio-
amino)-1,2-propanediol-2-ol (1.5 g.) in 10 cc. EtOH was
mixed with 1.5 g. 6-aminoquinoline in 5 cc. EtOH and
allowed to stand for 2 hrs. after which there was slowly

added 0.5 cc. concd. HCl) to yield the hydrochloride of *N*-[5-(6-quinolylamino)-7,6-*p*-protonolphenyl]ethanamine (methylthioethyl) (5-(6-quinolylamino)-2,4-pyridinediyl)ammonium chloride(HCl), red, m. 137-9° (from dil. MeOH and a little HCl). A similar reaction with 6-methoxy-8-quinoline gave the corresponding *Me* deriv., cherry red, m. 116-17° (from dil. MeOH and HCl). Presumably diad. pyridine (1 g.) and 4.5 g. 6-methoxy-8-quinoline in 25 cc. Et₂O treated with 1.25 g. CNBr to 10 cc. Et₂O, with reflux, gave after several minutes an abundant ppt. of RNHCl·CHCl·CHCl·CHCl·*N*·H₂Br (R = 6-methoxy-8-quinolyl), violet, m. 120-1° (from EtOH); (the above reaction with 6-aminquinoline gave 75.5% of RNHCl·CHCl·CHCl·CHCl·N·H₂Br, (R = 6-quinolyl), cherry violet, m. 125-6° (from EtOH), 1-(2,4,6-trimethylphenyl)pyridinium chloride (25 g.) in 200 cc. EtOH was treated with 20 g. 22% Et₃NH, stirred for a few min., warmed for 20 min. to 50-70°; after removal of much of the EtOH, the residue "as treated with 120 cc. cold water, stirred, and the sl. rate treated with 20% MeOH and red. with EtO) to give 24.5% 3-dimethylamino-2,4-protonol, b. 110-1°. This aldehyde (1 g.) in 2 cc. EtOH was stirred to 1.1 g. 6-methoxy-4-aminquinoline, heated for 10-15 min. to 50-60°, cooled, and then treated with 0.5 cc. concd. HCl; adds. of EtO and rubbing induced the product to sublimy and yielded *N*-[5-(6-methoxy-4-quinolylamino)-7,6-*p*-protonolphenyl]ethanamine-HCl (ethyl) (5-(6-methoxy-4-quinolylamino)-2,4-pyridinediyl)ammonium chloride), m. 61-4°, sol. in water, EtOH, MeOH, and insol. in EtO. G. M. Knappold

415-114 METALLURGICAL LITERATURE CLASSIFICATION

Lab. for Research & Synthesis, Institut F. Vegetabilien

[illegible]

KNUNYANTZ, I.

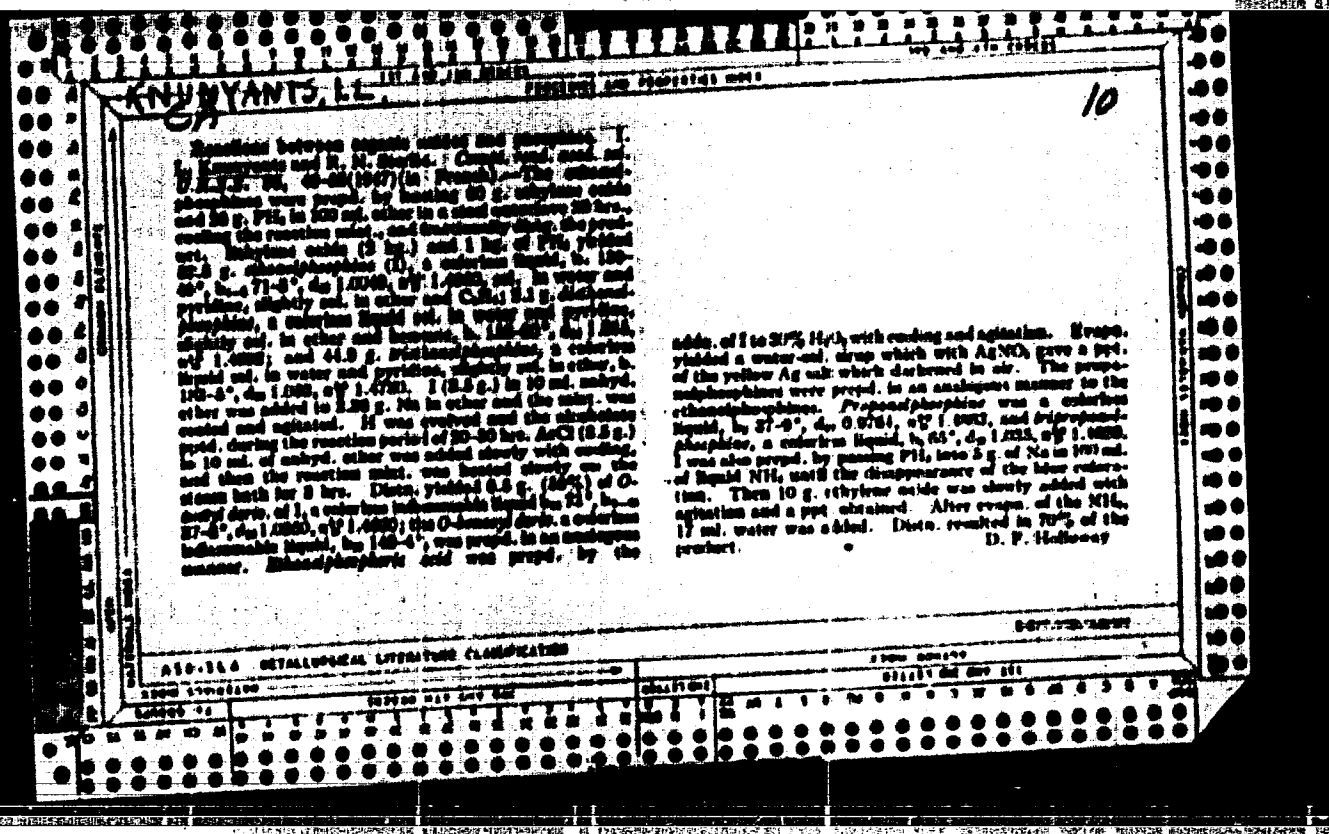
Knuniants, I., Rogevin, I., Rymashevskaya, J., and Height, E.- "Investigation in the field of Polymerising the Unstable Cycles. I. Investigation of the Polymerisation Process of Caprolactam" (p. 992)

SO: Journal of General Chemistry, (Zhurnal Obshchei Khimii), 1947, Vol. 17, No. 5

KNUNIAITZ, I.

Rogovin, Z., Hight, E., Knunians, I., and Rymachevskaya, U.- "Investigations in the Field of Polymerisation of Unstable Cycles. II. Polymerisation of Caprolactam in the Presence of Small Amounts of Water." (p. 1320)

SO: Journal of General Chemistry, (Zhurnal Obshchei Khimii), 1947, Vol. 17, No. 7



KNUNYANTS, I. L.

CA

RESEARCH AND PROPERTIES UNIT

10

The chemical action between aliphatic oxides and hydro-
 fluoric acid. I. L. Knunyants. *Compt. rend. acad. sci.*
U.S.S.R. 25, 222-2 (1947) (in French).—The reaction of
 various aliphatic HF with aliphatic oxides (I) in ethyl
 alcohol to give low yields of aliphatic fluorides. Max.
 yields are obtained (boiling with $\text{CH}_3\text{CH}_2\text{O}$) when the
 amount of I is either 2-4%, and when the ether contains
 1-2-4% HF. *Yields* (200 ml.), 20 g. anhyd. HF, and
 20 g. purified $\text{CH}_3\text{CH}_2\text{O}$ are heated in a steel bomb 6 hrs.
 in a boiling H_2O bath. The sealed reaction vessels are vented-
 ized with H_2O to remove the ether side, except the ether
 distillate, and the mixture dried over anhyd. H_2O . Fra-
 ctional distill. gives 60% 2-fluoroethanol, b. 120-1°, d. 1.122
 or 1.123 (both are given), n_D 1.400, (1-naphthyl-
 aniline, m. 120-2°); 2%, 2-fluoroethanol, b. 172-4°, d. 1.118, n_D 1.4150; a small quantity of
 alkylamine $\text{HOC(CH}_3)_2\text{H}$, and a residue. Similarly with
 the appropriate ether compounds are obtained: 1-fluoro-2-
 propanol, b. 107-8°, d. 1.081, n_D 1.388 (1-naphthylphor-
 ane, m. 21-3°); 1-ethoxy-2-fluoro-2-propanol (II), b.
 120-2°, d. 1.084, n_D 1.388; 1-ethoxy-2-fluoro-2-propanol
 (III), b. 124°, d. 1.080; 1-fluoro-2-methyl-2-pro-
 panol, b. 26°, d. 0.951, n_D 1.372; 2-fluoro-2-pro-
 panol, b. 26-28°, d. 1.080, n_D 1.372. In the
 case of 2-fluoro-2-propanol, 77% yield by treating II with dry powder, KOH.
 R. W. Fleming

ADDITIONAL LITERATURE CLASSIFICATION

INDEXED

CLASSIFIED

OFFICE/SECTION

DATE

KNUNYANTS, I. L.

25

CA

Pyridine analogs of di- and triphenylmethane dyes and their salts. I. L. Kunyants and V. M. Bessonovskaya. Doklady Akad. Nauk S.S.S.R. 90, 888-8 (1947); Chem. Abstr. [Russian Lang. Ed.] 1949, 1, 87. -- The series of R_1COH (I), m. 103-3°, R_1R_2COH (II), m. 154-5°, $R_1R_2R_3COH$ (III), m. 141-2°, and $R_1R_2R_3COH$ (IV), m. 172-3°, ($R_1 = 3$ -dimethylamino-2-pyridyl and $R_2 = 4$ -dimethylamino-phenyl) have been described (cf. C.A. 43, 409d, 410e). While IV does not show the characteristics of a dye, I, II, and III are typical dyes. They are analogues of crystal violet and their absorption spectra are shifted toward the violet and their absorption spectra are shifted toward the short wave length portion of the spectrum as compared with the absorption spectrum of crystal violet. Crystal violet: $\lambda_{max} = 560.5 m\mu$, HCl salt of III: $\lambda_{max} = 560 m\mu$, HCl salt of II: $\lambda_{max} = 560 m\mu$, HCl salt of I: $\lambda_{max} = 563 m\mu$. The assumption of the p -quinonoidal structure or its prohibition because the double bonds of deriva. of α -aminopyridine remain fixed does not explain the fact that salts of IV are not dyes while salts of I, II, and III can scarcely be distinguished from crystal violet. On the basis of other considerations it is concluded that dyes of the Ph.CII series are best represented by the formula: $[R_1C^+](Cl^-)$. M. G. Moore.

Inst. Org. Chem, AS USSR

1951

KNURYANTS, I. L.

Interaction of Aliphatic Oxides and Hydrogen
Fluoride," I. L. Knuryants, Corr Mem Acad Sci; O. V.
Kil'dicheva, N. O. Bikhovskaya, Inst Org Chem, Acad
Sci USSR, 4 pp

"Dok Akad Nauk SSSR, Nova Ser" Vol LVII, No 1

Describes new reaction in separation of aliphatic
oxides by hydrogen fluoride which produced glycol
fluorhydrin and discusses spontaneous change of
atoms of chlorine into fluoride.

KHMYANTS, I. L.

Chemistry, Fluorine Compounds
 Reactivity of Aliphatic Oxides With
 Fluorine Compounds, I. L. Khmyants, O. V.
 (Lithuania), Dokl. Akad. Nauk SSSR, Inst. of Org. Chem,
 Moscow, 1977, 5, 1/2 pp
 Dokl. Akad. Nauk SSSR, Vol. XIX, No. 1, p. 17-19
 Aliphatic fluorides react smoothly with
 ethylene glycol to form glycol
 fluorides. During heating, weak solutions
 of ethylene glycol in the oxides and anhydrous
 fluorides give a good yield of ethylene glycol fluorides.

KNUNYANTS, I. L.

...activity of Aliphatic Oxides with Hydrocarbons, II, I. L. Kunyants, O. V. Kivshin, ...
 ...Factor, Inst. of Org. Chem., Acad. Sci. USSR, ...
 ...15 pp

...Goskhimizdat, Vol. XII, No. 1, p. 93

...fluoroglycins may be formed by direct substitution of Cl in two steps, first involving quantitative formation of ethylene oxide from ethylene, then formation of ethylene oxide from ethylene, upon subsequent reaction with the action of H₂. Thus, upon substitution of HCl from the chloroglycins, IV ...

98/4501

...fluoroglycins. Hydrogen Fluorides (Contd.) and ...
 ...into HCl, liberating HF, which reacts ...
 ...to HF + H₂O. Under pressure this ...
 ...ion gives a 35% of theoretical yield of ...
 ...fluoroglycins. In addition, fluorine ...
 ...fluoroglycins, acids, esters, etc., were ...
 ...and a list of 36 fluorine compounds with ...
 ...physical constants and spectra of preparation ...
 ...fluoroglycins, reacted with acids and ...
 ...including those of perfluorinated esters. Esters of ...
 ...giving 2-fluoroglycidic esters. Esters of ...
 ...active groups are characterized by a pronounced ...
 ...reacting ability. Phenol, dicyclopentadiene, etc. ...
 ...fluoroglycidated. Submitted to May 17.

KHUNYANTS, I.

PA 27/49740

USSR/Chemistry - Pharmaceuticals Sep/Oct 48
Chemistry - Organic Compounds, Aromatic

"Academician Vladimir Mikhaylovich Rodionov (on
His 70th Birthday)," I. Khunyan, 3 pp

"Iz Ak Nauk SSSR, Otdel Khim Nauk" No 5 465

Congratulatory message to Rodionov, chemist,
biochemist, and physiologist, who organized
pharmaceutical and aniline-coloring industries in
Russia. He specializes in the aromatic series and
is particularly interested in β -amino acid.

27/49740

KNUNYANTS, I. L.

PA 68T46

USDA/Chemistry: Malonic Acid, Dialdehyde. Vol 1946
Chemistry: Condensation

"Vinyls of the Dialdehyde of Malonic Acid," I. L.
Kunyants, A. F. Shilapovskiy (Deceased), 51 pp

"Chem. Abstr. Russ." Vol XVIII (LXXX), No 2 - p.484

New method for obtaining vinyl homologs by condensing
dialdehydes by means of acetic aldehydes, shows that
during condensation of beta-tetrahydroquinolacryl by
malonic acid in solution with an acetic anhydride,
there was formed bis-tetrahydroquinoline produced
delta-1,5-hexadiene-1,7. Submitted 13 Aug 1946.

KNUNYANTS, I.L., KIL'DISHEVA, O.V., BYKHOVSKAYA, E.

Reactions of Aliphatic Oxides with Hydrogen Fluoride, Communication II, Zhurnal
Obshchey Khimii, Vol.19, No. 1, 1949, pp 101- 113.

KNUNYANTS, I. L.

PA 8/49752

Chem/Chemistry - Crystal Violet, Pyridine Apr 48
Analogues of
Chemistry - Dyes

"Dyes of the Di- and Tri-Pyridyl-Methane Series,
I," I. L. Knunyants, V. M. Berezovskiy, Lab
Heterocyclic Compounds, Inst Org Chem, Acad Sci
USSR, 78 PP

"Zhur Obshch Khim" Vol XVIII (LXXX), No 4 p.775

Describes preparation and structure of pyridine
analogues of crystal violet. Submitted 17 Mar 1947.

8/49752

KNUNYANTS, I. L.

PA 8/49753

USSR/Chemistry - Dyes
Chemistry - Synthesis

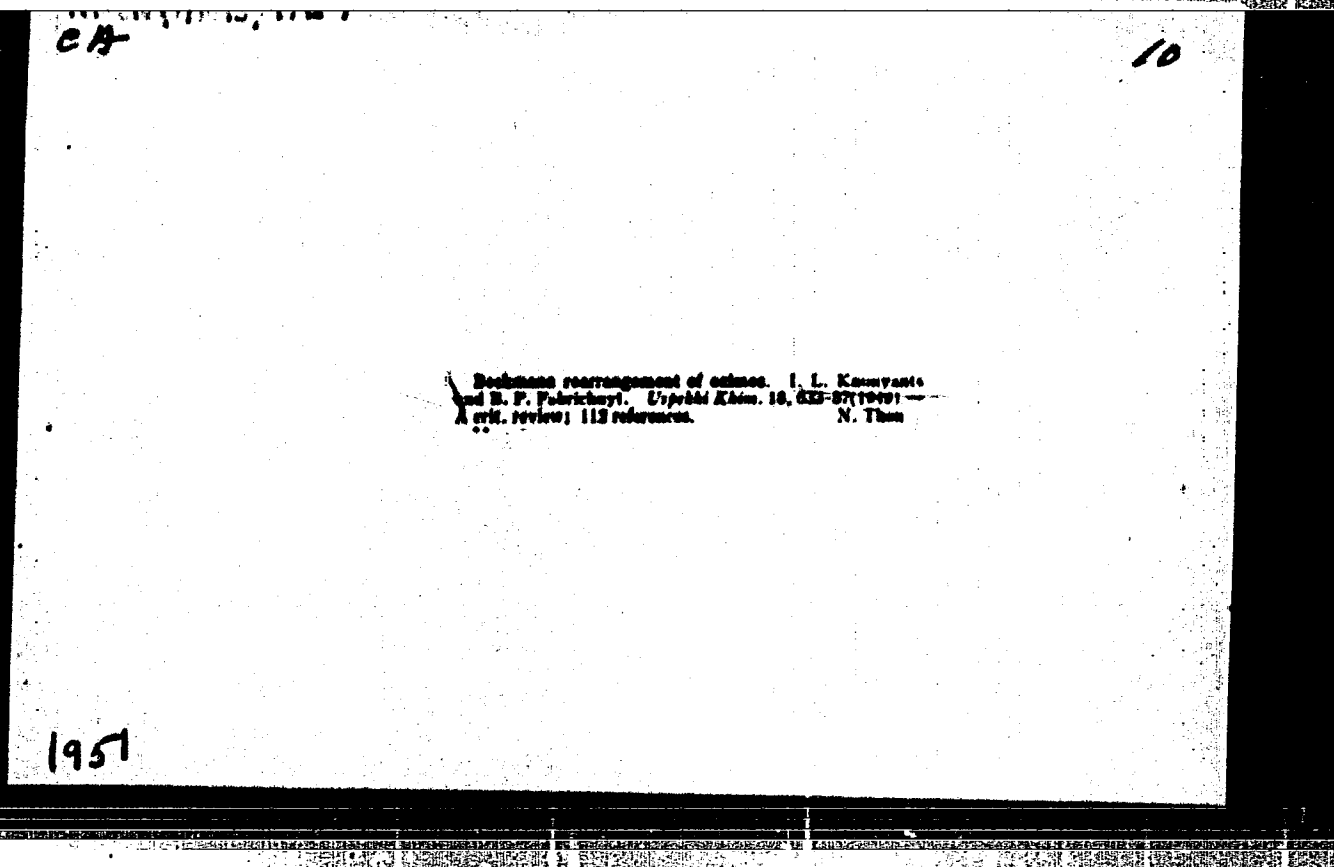
Apr 48

"Dyes of the Di- and Tri-Pyridyl-Methane Series,
II," I. L. Knunyants, V. M. Berezovskiy, Lab
Heterocyclic Compounds, Inst Org Chem, Acad Sci
USSR, 9 p

"Zhur Obshch Khim" Vol XVIII (LXXX), No 4, 776

Describes synthesis and color of a number of
pyridine analogues of di- and triarylmethane dyes.
Submitted 17 Mar 1947.

8/49753



KNUNYANTS, E. L.

CA

10

Rearrangement of oximes of cyclic ketones. Rearrange-
ment of the oxime of 1,4-cyclohexanedione. I. L.
Knunyants and N. P. Faltichny. *Doklady Akad. Nauk*
S.S.S.R. 62, 701-4 (1949).—1,4-Cyclohexanedione di-
oxime (I) does not have a characteristic m.p. and its spatial
configuration is unknown; however, the possibility of the
existence of *cis* and *trans* forms is supported by the
rearrangement products, which after hydrolysis yielded
(CH₃COCH₂)₂, (CH₃CH₂)₂, and β-alanine. The rearrange-
ment in 80% H₂SO₄ gave only unidentifiable products,
hence the p-toluenesulfonate deriv. (see below) was used. I
(1 g.) treated in 20 ml. pyridine with 21 g. p-MeC₆H₄-
SO₂Cl in pyridine at -5° and let stand overnight at 0°,
followed by dil. with ice-water, gave 20.8 g. bis(p-
toluenesulfonate), m. 145° (from dil. pyridine). This
(13 g.) heated 57 min. with abs. MeOH in a sealed tube
to 100°, followed by heating the evap. residue with 60
ml. concd. HCl, gave 0.3 g. (CH₃COCH₂)₂, as well as some
(CH₃CH₂)₂ and β-alanine. If the hydrolysis is conducted
with 10% p-MeC₆H₄SO₃H for 5 hrs. and the evap. res-
idue, extd. with MeOH, is treated with ultraviolet acid, there
is obtained 0.43 g. mixed ultravioletates of (CH₃CH₂)₂ and
β-alanine; passage of dry HCl into an EtOAc suspension
of this gave 0.26 g. residue which with picric acid gave
authentic ethylenediamine picrate, m. 223-4° (224°),
while the EtOAc soln. on dil. with H₂O, extd. with
EtOAc and im-Aminol, decolorization, and evap. gave
1.74 g. β-alanine-HCl (from im-PrOH), m. 118-20°.
O. M. Kozlovskii

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POLYMERIZATION OF FLUOROLEFINS. I. L. KUNYANTS
and A. V. POKH. *Russkii Khim. Zh.* 22, 410-20(1961) July-Aug.
The following subjects are reviewed on the basis of pub-
lished papers: tetrafluoroethylene, chlorotrifluoroethylene
(perfluorochloroethylene), vinylidene fluoride, 1,1-dichloro-2,
3-difluoroethylene, vinyl fluoride, isoprene, vinylfluoro-
acrylates, fluoromethylacrylates, and polyfluoroacrylates. The bulk
of the information given is based on foreign publications.
The following Russian work is referred to: A. P. Borodin's
synthesis of organic acid fluorides for the first time, A. N.
Kosovskiy's synthesis of furanyl fluoride for the first
time, and A. I. Mikhalev's method of preparing acid fluo-
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(OA 47 no.19:9945 '53)

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Some theoretical problems of contemporary organic chemistry. Vest.AN
SSSR 23 no.4:15-29 Ap '53. (MLBA 6:6)

1. Akademiya nauk SSSR.

(Chemistry, Organic)

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TERENIN, A.N., akademik; **KONDRAT'YEV, V.N.**, akademik; **KNUNYANTS, I.L.**, akademik; **KABACHNIK, M.I.**; **SOKOLOV, N.D.**, doktor **Fiz.-mat. nauk**; **KHUTOV, O.A.**, doktor **khimicheskikh nauk**; **MOSKVICHEVA, N.I.**, **tekhnicheskii redaktor**

[Status of the theory of chemical structure in organic chemistry]
 Sostoianie teorii khimicheskogo stroeniia v organicheskoi khimii.
 Moskva, Izd-vo Akademii nauk SSSR, 1954. 122 p. [Microfilm]
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1. Addition reactions of peroxyacetic acid. I. L. Kurnakov
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SIMONE, Joseph, 1897- [redaktor]; KNUYANTS, I.L., chlen-korrespondent [redaktor];
VARSHAVSKIY, Ya.M., kandidat khimicheskikh nauk [redaktor].

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angliiskogo, pod red. I.L.Kmniantsa i Ia.M.Varshavskogo. Moskva, Izd-vo
inostrannoi lit-ry, 1953- . (MLRA 6:8)

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"Addition Reactions of Fluoroolefins. II. Addition of Alcohols and Thiols to Perfluoropropylene," by I. L. Knunyants, A. I. Shchekotikhin, A. V. Pokin, Is. Ak. Nauk SSSR, OZhN, No 2, pp 282-289, Mar/Apr 53.

Describes the interaction of alcohols with perfluoropropylene, the saponification of beta-monohydroperfluoropropylalkyl ethers into alkyl esters of alpha-monohydroperfluoropropionic acid, and the addition of mercaptanes to perfluoropropylene.

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KNUNYANTS, I. L.

AID P - 1272

Subject : USSR/Chemistry

Card 1/1 Pub. 119 - 1/5

Authors : Knunyants, I. L. and Gambaryan, N. P. (Moscow)

Title : Reaction of hydromerization

Periodical : Usp. khim., 23, no. 7, 781-820, 1954

Abstract : A review of the hydromerization of unsaturated hydrocarbons, aldehydes and ketones, as well as of unsaturated acids is given. It is based principally on non-Russian sources. Four tables, 133 references (7 Russian: 1933-1953).

Institution : None

Submitted : No date

FRIDMAN, Endol'f Arkad'yevich; MASLOVA, Ye.F., redaktor; ~~MONYANTS, I.I.~~,
akademik, retsensent; VOYTKOVICH, S.A., kandidat khimicheskikh
nauk, retsensent; LOSHAKOV, P.Ya., inzhener, redaktor, retsen-
sent; GHEBYSHOVA, Ye.A., tekhnicheskij redaktor

[Perfumery] Parfumeriya. Izd. 2-e, perer. i dop. Moskva, Pi-
shchepromisdat, 1955. 526 p. (MIRA 9:4)
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✓ Reactivity of perfluorinated ketones and some of their
derivatives. I. L. Knunyants, *Vopr. Khim. Kinetiki*
Kataliza i Reaktivnosti, Akad. Nauk S.S.S.R.,
Mosc., 1955, 726-27. — An exam. of existing
information on reactions of perfluoro compounds, (9 references)
and the explanation of these reactions on the basis of elec-
tronic effects expected of the highly electroneg. F atoms
in the molecule. O. M. Koshitsyn

KNUNYANES, I. L.

USSR/Chemistry - Conversions

Card 1/2 Pub. 40 - 8/27

Authors : Knunyants, I. L.; Lin'kova, M. G.; and Ignatenok, P. G.

Title : Conversions of mercaptoamino acids. Part 1. Isodimethylcysteine and its derivatives

Periodical : Izv. AN SSSR. Otd. khim. nauk 1, 54-61, Jan-Feb 1955

Abstract : Data are presented on the addition reaction of sulfur chlorides and alkylthiochlorides to dimethyl acrylic acid and its ester. In contrast to the addition reaction of sulfur chlorides to olefins, which results in the formation of symmetrical sulfides, the addition to dimethylacrylic acid and its esters is concluded by the formation of stable sulphene chlorides.

Institution : Acad. of Sc., USSR, The N. D. Zelinskiy Inst. of Org. Chem.

Submitted : April 9, 1954

Card 2/2

Pub. 40 - 6/27

Periodical : Izv. AN SSSR. Otd. khim. nauk 1, 54-61, Jan-Feb 1955

Abstract : It was found that the reaction between the addition products and ammonia results in the formation of alpha-mercapto-beta-aminoisovaleric acid which is an isomer of natural dimethylcysteine and some of its derivatives. Two references: 1 German and 1 USA (1905 and 1946).